

PRODUCT INFORMATION

OF Basal Medium

Cat. No. O15-100

DESCRIPTION

OF Basal Medium (Hugh And Leifson) is a semisolid medium, prepared according to Hugh and Leifson's formula, and is used to determine the metabolism (oxidation, fermentation) of Gram-negative bacteria. It is useful for Pseudomonas, Salmonella, Shigella and Alcaligenes.

Casein peptone provides nitrogen, vitamins, minerals and amino acids essential for growth. Bromothymol blue is the pH indicator. Sodium chloride supplies essential electrolytes for transport and osmotic balance. Dipotassium phosphate acts as a buffer system. Bacteriological agar is the solidifying agent.

FORMULA (g/L)

Bromthymol blue	0.05 g	Bacteriological agar	2.5 g
Casein peptone	2.0 g	Dipotassium phosphate	0.3 g
Sodium chloride	5.0 g		

Final pH: 7.1 ± 0.2 at 25 °C

*Grams per liter may be adjusted or formula supplemented to obtain desired performance.

PREPARATION

Suspend 9.8 grams of the medium in one litre of distilled water. Heat with frequent agitation until dissolved. Sterilize in autoclave at 121 °C for 15 minutes. Add 10 ml of 10% glucose (or any suitable sugar) solution, sterilized by filtration, to 100 ml of liquid medium. Mix and aseptically dispense 5 ml per tube. If preferred, add 1,0 grams of carbohydrate directly to 100 ml. of medium and sterilize in the autoclave at 118 °C for 10 minutes to avoid the degradation of the sugar.

QUALITY CONTROL SPECIFICATIONS

1. The powder is homogenous, free flowing and beige with a greenish tint.
2. Visually the prepared medium is green-bluish without rests.
3. Expected cultural response after 48-72 hours at 35 °C ± 2°C.

ORGANISM	GROWTH	CHARACTERISTIC REACTION WITH SACROSE	CHARACTERISTIC REACTION WITHOUT SUGAR	CHARACTERISTIC REACTION WITH GLUCOSE	CHARACTERISTIC REACTION WITH LACTOSE
<i>Shigella flexneri</i> ATCC 12022	Good Growth	Opened: K Closed: K	Opened: K Closed: K	Opened: A Closed: A	Opened: K Closed: K
<i>Salmonella enteritidis</i> ATCC 13076	Good Growth	Opened: K Closed: K	Opened: K Closed: K	Opened: AG Closed: AG	Opened: K Closed: K
<i>Escherichia coli</i> ATCC 25922	Good Growth	Opened: K Closed: K	Opened: K Closed: K	Opened: AG Closed: AG	Opened: AG Closed: AG
<i>Pseudomonas aeruginosa</i> ATCC 27853	Good Growth	Opened: K Closed: K	Opened: K Closed: K	Opened: K Closed: K	Opened: K Closed: K
<i>Alcaligenes faecalis</i> ATCC 8750	Good Growth	Opened: K Closed: K	Opened: K Closed: K	Opened: K Closed: K	Opened: K Closed: K

K = Alkaline, green (without change)

A = Acid, yellow

G = Gas, sometimes perceptible

STORAGE

Store the sealed bottle containing the dehydrated medium at 2 to 30°C. Once opened and recapped, place the container in a low humidity environment at the same storage temperature. Protect it from moisture and light. The dehydrated medium should be discarded if it is not free flowing or if the color has changed from the original color.